ELECTRICITY REGULATION IN MICHIGAN – A HISTORY

I. Background and Basic Principles

A. Introduction and Purpose

- Understanding Electricity Regulation Under 2016 PA 341-2
- Requires Review of Statutory History
- Industry Development – Legislative Response
- Accompanying materials: slides, outline, glossary, references

B. Industry Participants Today (and Yesterday)

- Investor-owned utilities (IOUs)
- Municipal electric utilities
- Rural electric cooperatives
- Applicable economic and service regulation (MPSC, local government, customer-elected board)
- RTOs, Transmission Providers, PURPA QFs, NUGs and Power Marketers

C. Federal vs State Regulation Boundary

- US Constitution – Art I, Sec 8: power of Congress to regulate commerce among the several states ("commerce clause")
- US Constitution – Art VI: US law is the supreme law of the land ("supremacy clause")
- Dormant commerce clause: even where Congress has not acted, regulation imposing a direct burden on interstate commerce is beyond the power of a state
- Electricity: federal regulation of wholesale and interstate transactions; state regulation of retail rates for service and matters primarily of state concern

D. Traditional Regulatory Principles

- Just, reasonable and non-discriminatory rates
- Regulatory compact and duty to serve
- Role of Constitutional takings clause – balancing opportunity for return against protecting public from monopoly abuse
- Natural monopoly theory
- Traditional use of cost of service ratemaking (70+ years)
- R=O+(V-D)r (revenue requirement = operating expenses + return on undepreciated rate base)

II. Early Electric Industry Development and Start of Regulation

A. Founding Fathers of the Electric Industry

- **Thomas Alva Edison:** incandescent light bulbs in series; Pearl Street NY DC steam generators 6x1200 lamps; systems licensed – e.g. Detroit Edison
- **Nikola Tesla:** worked for Edison; developed polyphase AC electric generator
- **George Westinghouse:** first AC grid in MA and AC grid systems; Niagara Falls to Buffalo transmission, use of transformers to change voltage
- **Sam Insull:** also started with Edison; pioneered dominant model of vertical integration, economies of scale, demand and time metering, 2-part rate, promoting growth and demand diversity; holding company empire collapsed in Depression
- Insull: "If your entire plant is only in use 5.5 percent of the time, it is only a question of when you will be in the hands of a receiver."

B. Development and Growth (1880s – early 1900s)

- Competing types of local systems (AC, DC) often with municipal ownership
- Gretchen Bakke, The Grid, p57: "The electricity business might have been a chaotic diversity of competing interests and alternate systems in the final decades of the nineteenth century..."
- Battle of the Currents resolved in favor of 60 Hz, polyphase AC systems
- Technology: steam reciprocating generators, rotary and phase converters, transformers for AC transmission, polyphase system
- Public and business district lighting at first, competing with candles and gas; then trolleys (many small generators with special purposes)

C. The Beginnings of Regulation

- 1897-1907 primarily municipal regulation through competitive franchises and rate agreements; systems begin to expand beyond municipal limits
- Progressive concerns over natural monopolies (recent railroad experience) and municipal issues
- State commission regulation starts in 1907: NY, Wisconsin, Georgia; 33 states by 1914 (rates, service, service areas, accounting and financial)
- 2500 municipal electric utilities by 1922 (but declined from there)
- State PUC regulation provides financial stability to assure low cost, long term financing of capital additions

III. Michigan Electric Regulation Begins – Early 1900s

A. Initial Statutes

- Railroad Act, 1909 PA 300; MCL 462.2 – 462.50
- Utility Securities Act, 1909 PA 144; MCL 460.301 – 460.303 (repealed by 1995 PA 246)
- Electric Transmission Through Highways, 1909 PA 106; MCL 460.552 – 460.559

B. Railroad Act Provisions

- 3-member Railroad Commission (MRC): 2 same party – Governor appoints – 6-year terms – qualifications required (experience, 1 attorney)
- Included common carrier duty to serve; prohibits discriminatory rates
- Act 106 same year brought electricity under MRC control
- Act 144 same year required prior approval of public utility issuances of stocks, bonds, evidence of indebtedness

C. Electric Transmission - Act 106

- Governs MPSC regulation of electricity generated in one county and delivered in the same or another county
- Requires prior approval of electric rates, MCL 460.552
- Preserves local control via franchises and consent to use ROW (Michigan constitutions protected local control)
- Authorizes fixing of rates on complaint; incorporates just and reasonable standard; prohibits discrimination among similarly situated customers; authorizes rulemaking, and court appeals pursuant to Act 300
- Names elements to consider in setting price (cost, return, depreciation, obsolescence, business risk, connected load, value of service, hours and quantity), MCL 460.557(2)

D. 1909 Acts– What's Left Today?

- Act 144 on securities repealed in 1995 (redundancy with federal and state securities regulation)
- Sections 2–50 of Act 300 remain on books
- MPSC – 30-day appeal right still governed by Act 300, Section 26 (as amended); MCL 462.26; circuit courts until changed to appeals court in 1987
- Sections 1-9 of Act 106 remain

E. Public Utilities Commission Act, 1919 PA 419; MCL 460.51 – 460.52

- Abolished railroad commission and replaced with MPUC
- 5 members; Gov appoints; 4 year terms **(other qualifications gone)**
- Control, regulation and fixing rates of all public utilities in Michigan (gas added)
- Sections 5-8 continue in effect regarding MPSC ability to require utility reports, utility books and records and investigating complaints, MCL 460.55 – 460.58
- Legislature transferred previous statutory powers to the new body
- Continuation of the development of state regulatory commissions to regulate the rapidly growing energy industries (steam, gas, lighting, heating)

F. Interest on Guaranty Deposits, 1921 PA 347; MCL 460.651 – 460.652: still in effect; authorizes a regulated public utility to require a deposit from ratepayers under terms and conditions approved by the MPSC

G. Rehearings, 1923 PA 94; MCL 460.351 – 460.352: authorized MPUC to grant rehearings and amend orders; remains in effect

H. Electric and Gas Corporations, 1923 PA 238; MCL 486.251 – 486.255

- Authority to form corporations to sell electricity and gas to the public or to utilities
- Includes **authority to condemn land for electric and gas lines** and facilities
- Authority goes to corporations organized under this act or otherwise for public utility purposes
- Amended by 2004 PA 197 to extend its condemnation authority to independent and affiliated transmission companies defined in 1995 PA 30 (transmission certification act)

I. Certificate of Convenience and Necessity for New Gas or Electric Projects, 1929 PA 69; MCL 460.501 – 460.506

- Primary statute protecting IOU and cooperative service territory boundaries; remains in effect today
- Municipals have franchise and ROW local control powers to protect their electric utility service territories
- Act requires prior MPSC certification (CCN) to render service in a municipality where another public utility is already rendering service; MPSC must consider existing service, investment and public benefit

IV. Rapid Industry Growth and the Great Depression

A. National Developments – Federal Regulation Expands

- Continuing growth and consolidation, urban areas at first
- Federal regulation and power production begins
- Public Utility Holding Company Act of 1935 (SEC – limits them)
- Federal Power Act of 1935 expands Federal Power Commission regulation from hydroelectric to wholesale electricity transactions (now FERC)
- Rural Electrification Act of 1936 to facilitate extension of electricity in rural areas (cooperatives)
- Federal Electricity Generation Projects (work and development, WPA): Tennessee Valley, Bonneville, Hoover Dam and more – public power 12% of total generation by 1941
- Wendell Willkie (IOU president): "The Tennessee River touches seven states and drains the nation."

B. Michigan - Public Service Commission Act, 1939 PA 3; MCL 460.1 – 460.11

- This remains **the primary statute governing MPSC regulation of public utilities!**
- Abolished and replaced Public Utilities Commission – back to 3 members and 6-year terms
- Recitals (since removed) that PUC failed in its duties of regulation
- Includes provisions regarding the MPSC, regulatory process, conducting rate cases, power supply and gas cost adjustment cases, consumer representation, and more
- Major legislative changes in subsequent acts up to today are part of Act 3, including 1982 PA 304, 2000 PA 141-142 and 2016 PA 341-342

V. The Golden Decades – to 1970

A. Overview

- Uninterrupted prosperity for the industry
- Demand grows and prices fall
- Atoms for Peace – introduction of nuclear power
- Atomic Energy Act – 1954; Price-Anderson Act

B. Increasing Efficiency and Falling Prices (EIA data)

- Pearl Street (1882): 24¢/kWh and 138,000 Btu/kWh
- 1900: residential 17¢/kWh; 92,000 Btu/kWh
- 1932: residential 1932: residential 5.6¢/kWh; 20,700 Btu/kWh
- 1945-50: prices drop 3%/year
- 1950s: prices drop 1%/year
- 1960s: prices drop 1.5%/year; 10,500 Btu/kWh

C. Continuous Growth

- 1901-1932: 12% annual growth (capacity and production)
- 1932-1941: 8% production and 2.5% capacity/year
- 1945-1960: demand growth above 8%/year
- 1960s: 7.5% annual growth (capacity and production)
- Electrification grew from 8% of dwellings in 1907 to 67% by 1932 (forms to 50% by 1945)

D. 1960s – Clouds on the Horizon

- Continued improvements in technology and growth
- Heat rate (efficiency) improvements slowed
- Reliability became a concern
- Growth of environmental regulation increased (National Environmental Policy Act of 1969)
- Public demands for open government and due process

E. Northeast Blackout – November 9, 1965

- 30 million customers out; 26,000 MW lost
- Cascade started with transmission lines feeding Toronto - led to creation of North American Reliability Council (NERC) and regional reliability councils

F. Administrative Procedures Act, 1969 PA 306; MCL 24.201 – 24.328 (MAPA)

- Federal APA of 1946
- MAPA replaced and modernized earlier acts governing rulemaking (1943 PA 88)
- MAPA governs agency guidelines, formal rulemaking (JCAR), emergency rules, procedures in contested cases, licensing process and judicial review

- Duly promulgated rules have force and effect of laws (exercise of legislative power)
- Protections: notice, hearing, ORR, JCAR (rules must be within scope of statutory powers)

G. Open Government (1970s): Freedom of Information Act, 1976 PA 442; MCL 462.26 and Open Meetings Act, 1976 PA 267 *et seq.*; MCL 15.263 *et seq.*

- FOIA is a disclosure statute for public records (limited discretionary exceptions)
- MPSC protective orders
- All public body deliberations in open meeting (amended to allow MPSC case deliberations as exception)

VI. Increasing Costs and Energy Crisis (1970 – 1980s)

A. Overview

- Marginal costs begin to exceed average costs: inflation, labor costs, fuel costs, environmental concerns and public opposition to projects
- Arab Oil Embargo 1973 (Yom Kippur War)
- Oil Crisis of 1978 – 1980 (Iran Hostages)
- Three Mile Island 1979
- Fears of resource scarcity and "peak oil"
- Amory Lovins "soft path" article - October 1976 Foreign Affairs – "negawatts" and conservation
- Environmental movement and activism

B. Congress Responds to Energy and Environmental Issues

- Natural Energy Act 1978 created DOE, National Renewable Energy Lab
- Public Utility Regulatory Policies Act 1978 (PURPA): Section 210 requires utility purchase of alternative energy at avoided cost ("must buy" up to 80 MW – later reduced to 20 MW) – cogeneration and small power production
- Natural Gas Policy Act

C. Costs of Regulating Public Utilities, 1972 PA 299; MCL 460.111 – 460.120

- Provides for annual assessment collected through public utility rates to be utilized solely to finance the costs of regulatory public utilities; mostly apportioned among utilities on a gross revenue basis but some are adjusted based on circumstances

- Sets procedures for challenging assessments
- Funding goes to LARA and is distributed via appropriations among MPSC, MAE, Attorney General and Administrative Law Judges
- 2017: about $34 million ($27.7 million MPSC/MAE; $4.08 million LARA; $2.077 million Attorney General)

D. Emergency Energy Act, 1974 PA 1; MCL 460.151 – 460.184

- Response to energy crisis from Arab oil embargo
- Expired by its terms in 1974

E. Utility Adjustment Clauses, 1982 PA 304; MCL 460.6h – 460.6m (Part of Act 3)

- Banned automatic rate adjustment clauses that operated without notice and hearing
- Established a framework for adjustments to utility rates to reflect changes in the costs of gas and power supply (GCR and PSCR), with notice and hearing
- Established the utility consumer participation board and fund to assure ratepayer representation in the GCR and PSCR cases (extended to other cases in 2016)
- Major controversy at the time, with competing ballot proposals, resolved by the Supreme Court in Re Proposals D and H, 417 Mich 409 (1983)

F. Michigan Low Income Heating Assistance and Shutoff Protection Act, 1984 PA 34; MCL 400.1201 – 400.1217

- Part of a package of legislation dealing with low income energy assistance
- Created on assistance program that was implemented by utilities for the period through 9-30-88 (updated Michigan Energy Assistance Program today)

G. Public Assistance Home Repair, Weatherization and Shutoff Protection Act, 1984 PA 35; MCL 400.1151 – 400.1165

- Required measures such as a home energy analysis and provides for home repair and weatherization
- MPSC rules and other statutes also address shutoff protection

VII. Federal Efforts to Transform the Electric Industry and Increase Role of Competition (1980s – 90s)

A. PURPA (1978) and Non-Utility Generation

- Applied to **cogeneration** and small power production (≤80 MW) "qualifying facilities" (QFs)
- Local utility required to interconnect
- "must buy" obligation on utilities – payment at "full avoided cost" (utility marginal cost)
- Implemented through the states (MPSC settlement – about 45 Michigan QF contracts – 1980s, including MCV (1300 MW "cogeneration" QF)
- Capacity surplus since then reduced avoided costs to zero

B. Open Access Transmission

- QFs desire access to high-voltage transmission system to "wheel" power to distant end-users and utilities
- Generation market being viewed as competitive
- Energy Policy Act of 1992 – exempt (from PUHCA restrictions) wholesale generators and FERC authority to require wholesale wheeling (not retail)
- FERC Order 888: require transmission owners to implement open access, nondiscriminatory transmission; "unbundle" transmission service
- FERC Order 889 – OASIS information system available to all users to promote wholesale competition

C. Development of ISOs and RTOs

- FERC Order 2000 to promote regional system operations: manage the grid, create market for transactions, maintain capacity
- Independent System Operators (ISOs) are non-profits (own no facilities but control the grid)
- In Michigan: MISO (most) and PJM; MISO replaced earlier DTE/Consumers power pool
- Sharing of generation in the overall region.

D. Electric Transmission Line Certification Act, 1995 PA 30; MCL 460.561 – 460.575

- Utility, affiliated transmission company, independent transmission company must obtain an MPSC certificate of public convenience and necessity (CPCN) for major transmission lines (> 345kV and 5 miles)
- Requires public meetings and specified MPSC procedures
- Allows optional CPCN application for non-major transmission lines
- CPCN prevails over conflicting local ordinances and is binding for eminent domain proceedings MCL 460.570

VIII. Electric Restructuring in the States – Retail Choice/Open Access

A. Overview

- State electricity restructuring movement advances in 1990s – end users given choice of competing unregulated suppliers of generation (distribution and transmission remain regulated monopolies)
- MPSC tried experimental retail wheeling tariffs but Consumers Power v MPSC, 460 Mich 148 (199) ruled lack of statutory authority
- Market design issues led to failure in California Energy Crisis (2000-01); the scandal and collapse of Enron (market manipulation)
- 2003 Northeast Power Blackout
- Restructuring stopped at 14 deregulated states (e.g. TX, OH, IL, PA) + partial in MI and CA

B. Customer Choice and Electric Reliability Act (CCERA), 2000 PA 141-142; MCL 460.10 – 460.10cc

- Most significant revision of MPSC regulatory statutes since 1939 PA 3
- Pushed by Governor Engler and large customers favoring retail wheeling
- "Choice for those who want it and protection for those who need it"
- No forced utility divestiture of generating plants
- Required electric IOUs to implement full retail choice by 1-1-02 (municipal utilities retained control over decision; cooperatives given more flexibility)
- 5% reduction in residential rates for CE and DTE and all rates frozen until 12-31-03; residential freeze to 1-1-06
- Allowed full recovery of stranded and implementation costs
- Allowed securitization financing by utilities with part of the savings used to fund the 5% rate reduction and a low-income and energy efficiency fund
- Required unbundling of rates into components of power supply, transmission and distribution services (G, T and D)
- MPSC licensing of alternative energy providers

- Require IOUs to join a multi-state transmission system or divest their interest in transmission (control by MISO, PJM; ownership by ITC and ATC)
- Require 2,000 MW expansion plan for transmission import capability
- Merchant plant connection to T&D systems
- Market power review and potential mitigation
- Others: employee protection, environmental disclosures, customer choice education, code of conduct, shutoff protection, quality of service

IX. Michigan Experience – Following CCERA

A. Overview

- Act passed during the California energy crisis and just before the Enron scandal
- No significant retail choice offerings for residential customers
- High natural gas prices and wholesale electricity prices in early 2000s discouraged choice market development
- Wholesale merchant gas plant bankruptcies due to high fuel (gas) costs
- By 2008 AES sales at 4% for DTE and Consumers Energy (none for others); 3 years of decline
- Integrated Resource Planning (collaboratives)
    - Capacity Need Forum 1-3-06: forecast 2.1% annual demand growth; need new baseload plant by 2011 in lower peninsula
    - 21st Century Energy Plan 1-31-07 (recommended mandatory RE at 10% by 2015 and EE programs; new baseload needed by 2015
- Economic recession starting Fall 2008 reduced electricity demand and need for <u>any</u> new capacity
- Major issue = need for stable customer base to support new plants and not be able to escape costs through retail choice

B. Electric Cooperative Member Regulation Act, 2008 PA 167; MCL 460.31 – 460.39

- MPSC regulated electric cooperative rates, practices and services prior to this act
- Act allows board of directors (elected by customers) to elect member regulation for rates, accounting, billing and service (MPSC remains for safety, interconnection, retail choice....)
- All co-ops have by today elected member-regulation

C. 2008 PA 286, Act 3 and CCERA Amendments – Ratemaking changes throughout MCL 460.6 – 460.11

- Revised electric and gas rate case procedures
- Increase time for MPSC rate case processing from 9 to 12 months, while adding the concept of "deemed approval" after 12 months and the ability of utilities to "self-implement" rate increases 6 months after filing the request
- MPSC to adopt standard rate case filing forms and procedures
- New MPSC authority over utility mergers and asset transfers, MCL 460.6q
- New MPSC authority for certificates of necessity for large electric supply investment, including integrated resource planning, MCL 460.6s
- Additional fuel cost recovery for biomass (wood) merchant plants
- Require "de-skewing" of electric rates over time to reflect cost of service for each rate class, MCL 460.11
- Amended CCERA to "cap" retail choice at 10% of a utility's retail sales
- New provisions for administering retail choice programs in view of the 10% limit (allocation, return to service, exceptions for facility expansion)
- Full choice cap exemption for U.P. iron ore mining and processing facility

D. Clean, Renewable and Efficient Energy Act (CREEA), 2008 PA 295; MCL 460.1001 – 460.1211

- First renewable energy (RE) requirement in Michigan law: IOUs and co-ops (not municipals) must have 10% of energy supply from renewables by 2015 with interim steps; largest utilities must meet a capacity portfolio of 500 MW (CE) and 600 MW (DTE)
- Territorial limit on source of renewable energy (MI + nearby areas)
- Provisions on cost recovery, approval of RE plans, use and tracking of RE credits (RECs), incentive RECs for in-state equipment and workforce, reporting and civil enforcement for member-regulated co-operatives
- First energy optimization (EO) requirement in Michigan law: IOUs, co-ops and municipal providers must file plans to meet savings targets of 1% of electric sales and 0.75% of gas sales by 2015, with interim steps
- Provisions for cost recovery, option to use a state administrator, large customer self-directed plans, authorized incentives and MPSC oversight and reporting
- Provisions for the state to reduce grid-based energy purchases 25% by 2015 and implement conservation and efficiency programs for state buildings
- Set up wind energy advisory board to establish geographic zones that are favorable to wind energy development
- Authorize expedited transmission siting certification by MPSC for wind projects

- Require MPSC to establish a statewide net metering program applicable to all rate-regulated electric utilities and AESs, with provisions for interconnection, applications, metering and enforcement, MCL 460.1171 – 460.1185

X. 2008 – 2016 Uncertainty and Continued Debate

A. Overview

- Economic recession and decline in demand
- Anticipated baseload projects deferred (Capacity Need Forum; 21st Century Energy Plan forecasts wrong)
- Debate resumes on all significant matters: retail choice, RE and efficiency mandates
- Clean Power Plan – EPA
- All cooperatives elect member regulation

B. Michigan Energy Assistance Act, 2012 PA 615; MCL 400.1231 – 400.1236

- Establishes the Michigan Energy Assistance Program (MEAP), a statewide program to assist low-income households with energy bills, using federal LIHEAP and state funds
- Funds are dispersed by public or private entities under supervision by MDHHS in consultation with MPSC (LIHEAP grants to MI $158.9 million)
- Was set to expire 9-30-16 but has been extended to 9-30-19
- Works in conjunction with 2013 PA 95, amending Act 3 to add Section 9t that established a low-income energy assistance fund through an electric utility surcharge ($50 million from surcharges + $40 million LIHEAP)

C. Miss Dig Underground Facility Damage Prevention and Safety Act, 2013 PA 174; MCL 460.721 – 460.733

- Replaced previous legislation applicable to underground damage prevention
- Governs the operation of the Miss Dig call center and marking of underground facilities prior to excavation and blasting
- New procedures for complaints to the MPSC and enforcement

D. 2014 PA 169 0 Cost Based Rates

- Limited amendment to Act 3, Section 11

- Special proceedings to examine allocation of costs and rate design at 50-25-25 method
- New rates by 12-1-2015
- Led to cost shift from I to R class (U-17688, 17689) for DTE and Consumers

E. 2016 PA 341 (MPSC Regulation – Act 3 Amendments)

1. Overview

- Amends 1939 PA 3, the Public Service Commission Act
- Section references below are to those in current Act 3 – indicating amended and new provisions
- Summary is for major items and does not address editorial and minor changes

Section 6a – MPSC Ratemaking

- Include "steam utilities" in the MPSC rate setting provisions of Section 6a
- Utilities to coordinate rate case filings with MPSC staff; MPSC may delay filing up to 21 days for largest utilities, 6a(1)
- Rate self-implementation ability 6 months after filing ends for electric and gas rate cases filed after the effective date 6(a)(2)
- MPSC to issue final order 10 months after complete rate application [reduced from 12] or application deemed approved 6a(5)
- Gas utilities serving $\leq$ 1 million customers may seek partial and immediate relief by motion after rate filing; if granted, time for final order stays at 12 months 6(a)(1)
- On request by an electric utility with less than 200,000 customers, MPSC may approve revenue decoupling to adjust for changes in sales due to waste reduction, conservation, DSM; if the utility achieves the target of 1% of sales or the level approved in the IRP, 6a(12)
- MPSC may approve alternative decoupling or shared savings (Section 6x) mechanisms to prevent disfavoring customer-side programs vs. utility supply side investments, in contested case 6a(13)

- MPSC within 1 year to do cost of service study for net metering or DG under Act 295 – any tariff charge to be implemented in rate cases filed after 6-1-18 but current net metering customers would be exempt, 6a(14)

Section 6j – Power Supply Cost Recovery (PSCR)

- New definition of firm gas transport – to supply electric generator 6j(1)(a)
- Plan to include description of contracts to address adequacy of gas supply to electric generators 6j(3)
- Removes mandatory disallowance of unapproved > 6 month capacity purchases and prohibits disallowance of PURPA QF charges 6j(13)(b)

Section 6l – Consumer Representation Board

- Changes purpose to include representing customers in rate cases, CON and IRP cases 6l(1) [previously limited to PSCR, GCR]

Section 6m – Utility Consumer Representation Fund

- Changes funding mechanism and updates amounts
- Attorney General gets $900,000 annually divided (based on revenues) among utilities serving $\geq$ 100,000 customers, plus $100,000 annually divided (based on revenues) among utilities serving < 100,000 customers [this is about the current level]; escalates per CPI 6m(2)(a,c)
- Board gets $650,000 annually divided (based on residential sales) among utilities serving $\geq$ 100,000 residential MI customers, plus $100,000 annually divided (residential sales) among utilities serving < 100,000 residential MI customers [small utility funding is new]; escalates per CPI 6m(2)(b,d)
- Board applicants to identify other funding sources, coordinate with AG, advocate for residential customers, 6m(12)b
- UCPB to consider waste reduction, DR and rate design options in making grants 6m(11)
- Board may grant funding for rate, CON and IRP cases in addition to PSCR, GCR, plus federal cases affecting costs in MI 6m(16)

- Grantees to participate in discussions to settle or narrow issues to minimize litigation costs 6m(19)
- Board report to identify issues raised by grantees and how determined and include each grantee report 6m(20)

Section 6s (Electric Certificates of Need – CON)

- CON threshold reduced from project size of $500 million to $100 million [MPSC flexibility remains for criteria/standards for smaller utilities] 6s(1,2)
- MPSC to consolidate CON and IRP cases under Section 6t where proposal is to construct generation (G) of ≥ 225 MW 6s(1)
- Allows financial incentive at MPSC option for non-affiliate PPAs up to weighted average cost of capital 6s(6)
- Cost overrun language modified to make any excess project cost (not amount over 110%) presumed imprudent; preponderance burden to support recovery of excess costs 6s(9)
- Provision to disallow costs resulting from fraud, concealment, gross mismanagement, lack of quality control-refunds with interest; also provision allowing cancellation of ongoing project with cost recovery if no longer reasonable and prudent 6s(9)
- CON IRP section 6s(11) does not apply to electric utility with approved IRP under 6t, 6s(11)
- Existing G supplier in same ISO zone producing ≥ 200 MW can submit alternative proposal directly to MPSC and has standing to intervene; MPSC must evaluate and may consider but no authority to order adoption; other parties may submit "evidentiary alternatives" in the case, new 6s(13)
- CON appeals go to Court of Appeals in 30 days; expedited on docket; traditional administrative law review standards apply (APA + Constitution) 6s(14)

Section 6t (New – Electric Integrated Resource Plans)

- MPSC to conduct IRP assessment/modeling comment cases every 5 years (1st starts in 120 days) to examine waste reduction (WR) and demand response (DR) potential, environmental requirements, resource adequacy requirements, modeling assumptions and other matters 6t(1)

- Complete case in 120 days; not a contested case or appealable final order; review on appeal of IRP approval 6t(2)
- IRP cases to be filed by rate regulated electric utilities within 2 years of act, per MPSC filing requirements, with 5, 10, and 15 year projections of load and plans; 6t(3)
- MPSC may approve separate procedures and standards for electric utilities with < 1 million MI customers; multistate electrics may use multistate system IRP and coordinate filings and reviews 6t(4)
- IRP to cover forecasts, proposed G, renewable energy (RE) (RE credit portfolio is 10% through 2018, 12.5% in 2019-21, and 15% in 2022), WR, analysis of WR + RE compared to the [35%] combined overall goal in Act 295 Sec 1, LM/DR, cogeneration, transmission options, current G data, investment costs + PPAs, supply option analysis, rate impacts, environmental compliance + cost, peak reduction; 6t(5)
- Rate regulated electrics must obtain non-binding capacity bids per RFP before filing the initial IRP and attach all to filing; existing supplier of at least 200 MW in same ISO zone may submit proposal directly to MPSC and has standing to intervene; MPSC to consider but utility not required to adopt; utilities encouraged to partner with other providers in same local resource zone 6t(6)
- MPSC IRP process: advise utility of recommended changes within 300 days – then allow 15 days for comments and 30 days for utility consideration; final order within 360 days after filing; utility may update costs up to 150 days after filing; contested case; official notice of MDEQ advisory opinion on compliance with environmental regulations 6t(7)
- MPSC standard is "most reasonable and prudent" consistent with balancing of factors specified and use of state workforce (except in border counties) 6t(8)
- If MPSC denies IRP approval – utility may submit revisions in 60 days starting a new 90 day contested case (can extend to 150 days) or utility can proceed without rate recovery assurances 6t(9-10)
- Costs of projects/investments approved in IRP commenced within 3 years are reasonable and prudent for cost recovery; for new G must have EPC competitive bidding and allow complete 3rd party bids for projects where ownership goes to utility by operating date 6t(11-12)

- If new G proposed in IRP case is ≥ 225 MW, utility must also submit CON application under section 6s 6t(13)
- MPSC may authorize return on new PPAs with non-affiliates at or below weighted average cost of capital 6t(15)
- IRP appeals go to Court of Appeals in 30 days; expedited on docket; standard is compliance with constitution/law and within MPSC authority 6t(16) [differs from CON]
- IRP cost recoverable in rates; rebuttable imprudence for excess costs; no recovery of costs for fraud, concealment or gross mismanagement; no double-recovery; utility or MPSC may initiate proceeding to halt project - recovery of reasonable costs allowed 6t(17)
- Financing interest cost recovery during construction may be allowed (CWIP); utility may use AFUDC 6t(18)
- IRP review applications to be filed within 5 years, or any time by MPSC order (allows MDEQ to request) but utility then has 270 days to file it 6t(20-21), 6t(21)

Section 6u (new) – Performance Based Ratemaking (PBR)

- MPSC to commence a study within 90 days of act for PBR under which authorized return is tied to meeting policy targets 6u(1)
- Study to consider other jurisdictions and listed factors; address revenue estimates for multiple years, return based on expenditures, more time between cases, extended paybacks, customer based incentives & penalties 6u(2-3)
- Report and recommendations of MPSC to legislature and governor within 1 year from act 6u(4)

Section 6v (new) – Electric PURPA Avoided Cost Rates

- Contested case at least every 5 years to update avoided cost rates for PURPA qualifying facilities; set schedule for each utility 6v(1)
- PURPA federal rate standards apply 6v(2)
- Less than full contested case may be allowed in later cases for smaller utilities 6v(3)

- Prevent discrimination and set just and reasonable cost-based rates for maintenance, backup, interruptible and supplementary power and require published template contracts on utility websites for projects < 3 MW (non-binding and need not include price or term) 6v(4)

- MPSC reports in 1 year, then every 2, to MAE and legislative committees, on PURPA QF projects 6v(5)

Section 6w (new) - Electric Resource Adequacy (provisions apply to IOU, municipal, co-op)

- Where ISO obtains FERC approved tariff for forward capacity auction that includes state capacity payment option (PSCM), MPSC holds contested case to consider PSCM vs. auction; MPSC charge lasts 4 years 6w(1)

- If ISO tariff has forward capacity auction but no PSCM, MPSC holds contested case to consider auction vs. a state reliability mechanism under 6w(8) but if no effective ISO tariff at all by 9-30-17 then MPSC shall establish a state reliability mechanism; state mechanism in effect 4 years 6w(2)

- MPSC capacity charge determination required via contested case to include generation costs for capacity offset by revenue from energy sales 6w(3)

- Annual true up for net revenue in capacity charge; capacity charge reviewed at least annually in rate/PSCR cases 6w(4-5)

- No capacity charge on AES that owned/contracted capacity 6w(6)

- Electric provider has capacity obligation for load covered by an AES capacity charge 6w(7)

- State reliability mechanism addresses 4-year capacity of utility, AES, municipal and co-op – capacity charge payment may be required 6w(8)

- Courts are forum for actions against municipal or cooperative providers 6w(9)

Section 6x (new) – Electric Energy Waste Reduction Incentive

- Purpose is to facilitate consideration of energy waste reduction (conservation, DR, other) in electric IRP proceedings; cost-effective shared savings mechanism (SSM) to be authorized by MPSC by 1-1-21 6x(1)

- SSM is 25% of net benefits for 1-1.25% achieved energy savings, but capped at 15% of program expenditures that year 6x(2)

- SSM is 27.5% of net benefits for savings of 1.25-1.5%, but capped at 17.5% of expenditures 6x(3)
- SSM is 30% of net benefits for savings of >1.5%, capped at 20% of annual expenditures 6x(4)

Section 6z – (New) Discontinuance of Service

- Covered utility (co-op or rate regulated) must file abandonment application to discontinue service to a geographic area (unless another utility is coming in) 6z(1)
- Notice to MPSC after 30 days required for utility filing proposal to retire plant with RTO 6z(2)
- Advance notice to MPSC required (60 days) for application to NERC entity to revise load balancing authority 6z(3)

Section 10 - Purpose of Retail Electric Choice Act, 2000 PA 141

- Amend to remove both "choice for all" retail customers in purpose and encouraging merchant plants
- Reference to assuring "competitive" as opposed to "reasonable" rates

Section 10a – Retail Electric Choice (choice applies to IOUs, only co-op customers > 1MW; optional for municipals)

- 10% electric choice cap remains with these qualifiers:
    - New provision that where electric choice load falls below 10%, MPSC sets new cap at the lower level that remains for 6 years, before returning to 10% 10a(1)(c)
    - Choice customer served continuously since 4-1-08 may expand usage (beyond 10% cap) for existing and new load at same facility or new facility similar in nature if customer owns $\geq$ 50% (existing provision) 10a(1)(d)
    - Choice customer facility receiving 100% from AES on or after effective date of amendments may expand choice supply without limit for increased load at facility and load at any new facility on contiguous site if customer owns 50% of the new facility new 10a (1)(e)

- "Cliffs exception" for iron ore mines remains but conditioned on compliance with settlement agreement requiring mine to facilitate construction of new power plant. Mines and any AES supplier to them are not subject to any of the amendments to Act 3 or new administrative regulations and previous law/orders remain effective 10a(1)(f)

- The "choice queue" continues to operate subject to these provisions:
  - Utilities make annual fling by January 15 of rank-ordered queue and estimated usage of each customer – customer specific information kept confidential regarding FOIA 10a (1)(h)
  - Removal from queue of customer in-line given notice of available room under cap that declines to take AES service – may rejoin as a new customer 10a(1)(i)
- New license condition for AES to comply with the act 6(1)(k)
- Customer to be dropped by AES due to service limits gets 60 days (180 for public entity) to find another AES 10a(1)(v)
- Code of conduct and appliance service plan provisions are removed from this section moved to new 10ee.

Section 10c – MPSC Enforcement of Choice Act

- Adds natural gas providers as subject to fines for violation regarding code of conduct provisions 10c(1)

Section 10f – Market Power

- Delete subsection 10f(6) requiring the U.P. market power report (study was done).

Section 10r – Utility Disclosures

- MAE is given responsibility for the renewable energy program formerly under MPSC authority in 10r(5)

Section 10t – Shutoff Protection

- Shutoff allowed for failure to pay charges under the new residential improvements program in Part 7 of Act 295 (SB 438) 10t (2-3)

Section 10dd – Funding for Regulation

- MPSC funding appropriation for FY 2016-17; AG assigned $150,000 for one employee; ALJs assigned $600,000 for 4 positions to implement act; MDEQ assigned $150,000 for one employee; MAE assigned $260,000 for 2 employees 10dd

Section 10ee (new) – Value Added Services

- Electric code of conduct and appliance service programs formerly in Section 10a(4)-(11) are moved here and revised; throughout the section the term "electric utility" is replaced with "utility" to include natural gas providers (electric and gas utilities regulated by MPSC)

- Unregulated "value added programs" include energy related services such as home comfort, appliance service, engineering, building performance; utility may offer if no harm to public interest by restraining trade in unregulated market

- Provisions require separation from utility activities, personnel, books and records, promotion; also no subsidization, equal access for competitors to customer lists, disclosures, pay for billings, no joint marketing (there are numerous code of conduct restrictions here) 10ee

Section 10ff (new) – Energy Ombudsman

- Established within MAE as of 1-1-17 to track energy costs and trends, serve as a liaison, monitor agencies and energy issues, convene energy meetings and monitor code of conduct + unregulated utility services 10ff(1-2)

Section 11 – Cost Based Rates

- Removes the cost allocation language (industrials) added by 2014 PA 169

- Class cost of service still the overall requirement but MPSC may phase-in shift to COS rates to reduce rate impacts; each class to be assessed for fair use of grid 11(1)

- Class cost allocation per 75-0-25 method, except transmission 100% demand, but MPSC may vary 11(1)

Enacting Sections: repeal obsolete MCL 460.6c (energy conservation programs) and MCL 460.6e (1983 impact report on renewable resource facilities); tie bar to SB 438; effective 90 days after enacted

F. 2016 PA 342 (Amends Act 295)

1. Overview

- Amends 2008 PA 295, the Clean, Renewable and Efficient Energy Act
- Name changed to Clean, Renewable and Energy Waste Reduction Act
- "Energy waste reduction" (WR) replaces energy "optimization" throughout
- This amendment includes the 35% overall WR + RE goal by 2025; WR for gas continues indefinitely at current standard; after 2021 electric providers set 2-year standards; RE has the 35% combined goal with WR plus a 14% new floor starting in 2018

Section 1 – Purpose and Title

- Title changed as indicated above; purpose amended to include promoting clean and renewable energy and reduction of waste; coordinate with environmental regulation and remove burdens to use of solid waste
- New "goal" of meeting at least 35% of state electric needs through combination of waste reduction (WR) and renewable energy (RE) by 2025 if "most reasonable" vs. other options; what counts toward goal is all RECs before and after this amendment and cumulative energy waste reduction savings since 10-6-08 new 1(3)

Sections 3-5-7-9-11 - Definitions

- New terms include "cogeneration facility", "distributed generation program" (Section 173), wood in "biomass" must be from sustainability managed forests (restored); "true" and "modified" net metering remain; restores RE credit and capacity standards definitions
- Restores RE credit standard and portfolio definitions and retains territorial limits on RE source

Subpart A. Renewable Energy

Complete Repeal of Sections 21 (RE Plans), 23 (Plans of AES/Co-op), 25 (Plans of Munis), 27 (RE Capacity and Credit Portfolios, 31 (Compliance Deadline Extensions), 33 (large utility RECs – 50/50 Split – Unaffiliated), 37 (RE contracts – without RECs), 43 (advanced cleaner energy), 51 (annual provider reports), 53 (failure to meet RE standard).

Section 22 (new) – RE Plans & Revenue Recovery

- Existing plans and recovery mechanisms remain effective 22(1)
- Rate regulated electric providers' amended RE plans must use non-volumetric rate recovery – no impacts above Sec 45 caps 22(2)
- Review of all RE plans within 1 year – contested case for rate regulated electrics, comment cases for the others 22(3)
- Plan amendments allowed after the initial review, by cases filed at MPSC 22(4)
- MPSC shall approve plan/amendments of rate-regulated electric providers if reasonable and prudent + consistent with 35% combined RE/WR goal + meets RE credit standard through 2021 22(5)

Section 28 (new) – RE Credit Portfolio [applies to electric providers – IOU, municipal, co-op]

- Existing 10% standard applies 2016-2018; in 2019-2020 increases to 12.5%, in 2021 it is 15% 28(1)
- Meet with RECs from generation or REC purchases with or without the energy 28(3)
- MPSC reviews proposed RE contracts for rate regulated electrics – stricter standard for unsolicited proposals (opportunity not available via bidding) 28(4)
- MPSC may allow WR credit substitution for up to 10% of RE standard 28(5)

Section 39 – REC Attributes

- Preserves 1 REC = 1 MWh
- Preserves all existing incentive RECs
- RECs expire when used to either comply with RE standard or (for rate-regulated utilities) for contribution towards the 35% combined goal 29(3)
- REC life goes to 5 years (from 3) 39 (3)(d)

Section 41 – REC Transfers

- Continues existing provisions allowing transfers except for existing (2), (3), (4)(g) and (5)

Section 45 – Cost of Compliance

- Preserves existing language with retail rate caps ($3.00 – 16.58 – 187.50 per meter per month for R-C-I) 45(2)
- Removes provisions on billing requirements, itemized charge and life cycle savings vs. coal plant 45(5)

Section 47 – Rate Recovery

- Preserves language on cost recovery and calculation of incremental cost of compliance 47 (1-2)
- A few technical amendments

Section 49 – RE Cost Reconciliation

- Most language is retained
- Preserves the basic provisions of the existing program 49(1-4)

Subpart B. Customer Requested Renewable Energy

Section 61 - Customer Requested Renewable Energy

- New Section 61 requires electric providers (IOU, muni, co-op) to offer customers voluntary green pricing programs from options offered by provider; MPSC regulates program and green energy rates for rate regulated providers; customer pays excess charges 61

Subpart C. Energy Waste Reduction (formerly Energy Optimization, Subpart B)

Complete Repeal of Section 79 (advanced cleaner energy)

Section 71 – Energy Optimization Plans, Filing and Content

- Existing plans continue as waste reduction (WR) plans, for rate-regulated, municipal and cooperative providers
- More flexibility on efforts for national gas provider customer classes. 71(4)(h)

Section 73 – MPSC Plan Approval

- Preserves existing language with clarity on enforcement and 2-year reviews

- After 12-31-21, section does not apply to electric provider (muni, co-op) whose rates are not regulated by MPSC 73(6)

Section 75 – Incentives for Exceeding Plan Targets

- Includes modified incentives for WR programs that increase with bonds above the annual savings targets, based on the lower of X% of life-cycle savings or Y% of the annual program expenditures – Lowest level is 25%/15% 75

Section 77 – Minimum Energy Savings Standards for Electric and Gas Providers

- Removes the former ramp up provisions and continues the 1% electric annual energy savings targets through 2021; the 0.75% annual gas target continues without end date. 77(1-3)

- Removes provisions allowing electric provider substitution of advanced cleaner energy credits

Section 78 (new) – Petition for Alternate Standards

- Starting 1-1-22 then every 2 years, rate-regulated electric providers file WR plans proposing the target for the 2-year period; also allows petition for reduction of electric target 78(1-2)

- Natural gas provider can petition MPSC for alternative standard if the existing standard cannot be met in cost-effective manner for 2-year period 78(3)

Section 81 – Alternative Standards for Smaller Electric Utilities

- Repealed effective January 1, 2022 [standards determined in WR plan cases under 78]

Sections 83, 85 and 87 – Waste Reduction Credits

- Provisions dealing with EO credits (1 MWh equivalent; no transfers; carry forward) continue using WR instead of EO

Section 89 – Cost Recovery

- Amend provision to allow either volumetric or per-meter charges for recovery of program costs and bill itemization; itemized bill prohibited after 1-1-21 89 (2)

- Removes cost cap provisions of 1.7% sales revenue (gas) and 2.2% (electric)

- Prohibits natural gas provider using Act 3, 6s decoupling from using this section 89(6)

Section 91 – Alternative Compliance and State Administrator

- Removes ramp up sales revenue payment for alternative compliance and fixes it at 2% of revenue for second preceding year [no removal of 2% limit]; payments to administrator may be collected by volumetric or per meter charges to all customers itemized on bills 91 (1-2)
- No billing itemization allowed on and after 1-1-21 91(3)

Section 93 – Self Directed Plans for Eligible Electric Customers

- Continues as-is but obsolete ramping up provision for 2009-14 removed 93(2)

Section 95 – Load Management

- Amended to specifically urge promotion of programs for remote air conditioning and other device control for AMI customers; participation to be voluntary for providers and customers except rate-regulated providers with AMI shall offer DR; incentives for customer participation and customer protection as determined by MPSC; customer must stay in program 1 year 95 (1)(a)
- Removes some provisions for MPSC reports and promoting efficiency and conservation.

Section 97 – Compliance With Standards and Annual Reporting

- Removes obsolete MPSC reporting but continues annual report for providers + MPSC 97(4)
- Program suspension continues if WR program not cost-effective (ends for electric after 12-31-21) 97(6)

Section 99 (new) – Enforcement of Energy Savings Standards for Municipal and Cooperative Electric Utilities

- Provides for civil action by customer or Attorney General against a cooperative or municipal electric utility preceded by notice and opportunity to resolve prior to filing suit 99

Subpart D. Miscellaneous

Repeal of Section 155 (MPSC annual wind zone report)

Section 113 – Testing Energy Use

- Amendment effective 1-1-21 removes electric exemption for pollution control testing 113(2)

Part 5. Distributed Generation (DG was formerly called Net Metering)

Section 173 – DG Program

- Program applies to rate-regulated electric utilities and AESs 173(1)
- Change from net metering to distributed generation terminology; existing program size limits continue (1% overall) 173(2)
- Customer capacity limit changed from that "designed to meet needs" to "up to 100% of electricity consumption for the previous 12 months" 173(2)
- MPSC rules may require inverters with automated grid balancing functions; allow utility testing and parallel operating agreement 173(6)

Section 175 – Costs and Interconnection

- Application fee limit reduced from $100 to $50; other provisions the same except for the switch from calling it net metering to DG 175(1)

Section 177 – Metering and Billing

- Existing provisions on meters, charging customers for meters, credit for excess generation and grid delivery are unchanged except to use DG instead of net metering 177
- Any charge established for DG customers under Act 3, Section 6a not to be reduced by any credit or other DG mechanism 177(5)

Section 183 (new) – Grandfathering Existing Customers

- Customer of existing net metering program may elect to continue for up to 10 years from enrollment, but not as to any increase in the generator capacity

Section 185 (new) – Industrial Customer Self Generation

- Act does not limit or restrict industrial self-generation or cogeneration even with third party build 185

Part 7 – Residential Energy Improvements (new)

Section 201– Definitions

- Projects include waste reduction equipment (long list of examples such as insulation, HVAC) and renewable energy systems 201

Section 203 - Programs

- Rate regulated providers **may** establish residential energy improvements programs 203(1)
- If financing is obtained, loan is repaid through itemized charges on the utility bill (on-bill financing) 203(2)

Section 205 – Establishing Program

- Plan must be approved by MPSC pursuant to provider filing; standard is reasonable and prudent.
- Plan must include specifics on cost, administration, eligibility, fees, on-bill financing and marketing; MPSC review required every 4 years 205(2)

Section 207 – Baseline Audit and Shutoffs

- Must do advance baseline audit before on-bill financing of improvements; also verification after completion 207(1)
- Utility may shut off for non-payment under same requirements as utility service shutoffs; if notice of loan is recorded, the obligation runs with the land 207(2)

Section 209 – Loan Requirements

- Term at lesser of 180 months or life of project, for residential improvements
- Prime plus 4% cap on interest rate for loans by nonprofits 209

Section 211 - Rulemaking

- MPSC to promulgate implementing rules within 1-year of act 211(1)

- MPSC report and recommendations to legislature every 5 years.
- Providers not limited from proposing residential programs with elements that differ from those under this section 211(3)

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State and Federal Rate Regulation of the Electric Power Industry: A History, The New England Council 2012

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Legal and Regulatory Terms and Abbreviations

AES (Alternative Energy Supplier)	Alternative energy (sometimes "electric") supplier – an unregulated nonutility provider of electricity or gas delivered through the system of a utility to an end use customer.
Avoided Cost	A rate standard adopted in PURPA to mean the cost of electricity a utility would pay for purchasing or generating it absent the electricity being provided by a QF.
Act 3	1939 PA 3, the major Michigan law governing MPSC regulation of public utilities. MCL 460.1 *et seq.*
Act 9	1929 PA 9, a Michigan law providing for MPSC regulation of intrastate natural gas pipelines and some aspects of gas production. MCL 483.101 *et seq.*
Act 30	1995 PA 30, Michigan's electric transmission line certification act. MCL 460.561 *et seq.*
Act 69	1929 PA 69 is the Michigan statute protecting utility service territories by requiring MPSC certification if another utility is already in the same municipality. MCL 460.501 *et seq.*
Act 141	2000 PA 141, a Michigan law called the Customer Choice and Electric Reliability Act providing for securitization, service unbundling and full electric retail choice; part of Act 3. MCL 460.10 *et seq.*
Act 286	2008 PA 286, amending Act 3 to provide for changes in MPSC regulation, including de-skewing, projected test year, file and use/self-implementation, 12-month clock on rate cases, merger authority, certificate of need for electric generating plants.
Act 295	2008 PA 295 which initiated or formalized Michigan's current programs for renewable energy, energy optimization, net metering and other matters. MCL 460.1001 *et seq.*

Act 304	1982 amendments to Michigan Act 3 that added procedures for rate adjustment clauses allowing annual adjustments to utility rates to reflect changes in fuel, purchased electric power and purchased gas costs. MCL 460.6a – 460.6m.
Act 341	2016 PA 341 amending Act 3 provisions on MPSC ratemaking and adding new measures for integrated resource planning and electric resource adequacy.
Act 342	2016 PA 342 amending Act 295 provisions on renewable energy, energy waste reduction and net metering; added new measure for residential energy improvements.
CAA	Clean Air Act of 1970 (and 1977 amendments) leading to EPA regulation of power plant air emissions.
CAAA 90	Clean Air Act Amendments of 1990 leading to a cap and trade system for air emissions allowances.
DNR/DEQ	State departments of natural resources or environmental quality that administer state environmental laws.
DOE	Department of Energy, created as a US cabinet level agency in 1977 administered by the Secretary of Energy.
Code of Conduct	Standards that govern relationships between parties, such as a utility and affiliated or unaffiliated suppliers or marketers.
Decoupling	Term is used for utility ratemaking measure that removes utility profit association with the volume of electricity or gas commodity sold. This allows the utility to be indifferent to efficiency measures that reduce sales volume, because its earnings do not decline with reduced usage. Higher fixed monthly charge or adjustments.
De-skewing	Act 286 requires that rates for customer classes be modified over time to reflect the actual cost of serving that class (residential, commercial or industrial). Act 286 seeks to end "class subsidy" by the industrial customers in favor of residential.

DG (distributed generation)	Small electric generators interconnected to the grid; also those connected under the DG (formerly net metering) program in Act 295.
DR (demand reduction)	Applications on the utility or customer side of the meter that reduce demand for electricity, e.g. smart appliances, air conditioning load control.
EIA	Energy Information Administration within the Federal DOE, a source for energy statistics: www.eia.gov
EPA	Environmental Protection Agency, a US agency formed in 1970 to administer federal environmental laws. www.epa.gov
EPAct	Energy Policy Act, an act of the US government on energy policy issues (e.g. EPActs 1992, 2005).
ERO	Electric Reliability Organization (see NERC); oversees 8 regional electric reliability councils (including Midwest Reliability Organization – MRO; Reliability First Corp. – RFC).
EWG	Exempt wholesale (electric) generators owned by non-utilities, encouraged to enter the wholesale electric supply market by EPAct 1992 (exemption from PUHCA, open access directive to FERC).
Eastern Interconnection	The electric grid region covering the East and Midwestern US, including 6 of the 8 regional electric reliability councils.
Energy waste reduction (EWR)	A term used in Act 342 to refer to energy efficiency and conservation measures previously called Energy Optimization (EO) in Act 295.
FERC	Federal Energy Regulatory Commission, the US agency regulating interstate electricity rates, hydroelectric licensing, interstate natural gas matters, pipelines and LNG terminals (f/k/a Federal Power Commission or FPC until 1977).
FPA	Federal Power Act of 1935, initiated FPC regulation of interstate electricity sales and transmission.

FPC	Federal Power Commission, a US energy regulatory agency now known as FERC.
Franchise	A consent by local government for a utility to locate facilities and/or conduct business in the geographical area of the municipality.
GCR	Gas Cost Recovery, referring to the annual rate adjustment mechanism for Michigan natural gas utility rates, authorized by Act 304.
GHG	Greenhouse gases (water vapor, methane, carbon dioxide, etc.).
IGCC	Integrated gasification combined cycle – electric generating technology involving coal-derived gas used to run a combustion turbine.
IOU	Investor-owned utility.
Integrated Resource Plan (IRP)	As used in Act 3, Section 6t, a periodic utility plan to meet future demand for electricity through a variety of resources, including generation and efficiency/conservation.
ISO	Independent System Operator – another term for some RTOs.
LIHEAP	Federal Low-Income Home Energy Assistance Program that makes block grants to the states for energy assistance.
LNG	Liquified natural gas (-259° F).
Local Clearing Requirement (LCR)	An amount of capacity determined by the ISO that should be located in a local resource zone to ensure system reliability.
LSE	Load serving entity – sells electric energy to end use customers.
Load	Demand for electric service; or a specific device that uses electricity.
Michigan Agency for Energy (MAE)	A new state agency (2015) addressing state energy policy and programs, such as energy markets, security and customer assistance.

MCF	Natural gas volume measure meaning 1,000 cubic feet of gas. Customers are often billed based on hundreds of cubic feet, or ccf.
Michigan Energy Assistance Program (MEAP)	A Michigan program created by statute to assist low income customers in meeting energy needs.
MISO	Midwest Independent System Operator of Carmel, IN that controls the bulk electric system in most of Michigan and other Midwest states.
MPSC	Michigan Public Service Commission – the state agency regulating electric and gas service and rates.
MW	Electric power measure meaning "Megawatt" or 1 million watts; also used are kilo (1,000) or giga (1 billion) watts. A large generating facility may have the capability of producing 1,0000 MW (capacity).
MWh	Megawatt hour, or 1 million watts for 1 hour; compare to kilowatt hour (kWh) or 1,000 watts for 1 hour (electricity is billed by such usage over time).
Miss Dig	The Michigan one-call system for marking underground energy facilities prior to excavation or blasting. 1-800-482-7171 or 8-1-1.
NEPA	National Environmental Policy Act of 1969 requiring environmental impact statements (EIS) for new power plants.
NERC	North American Electric Reliability Corporation, a nonprofit organization that oversees reliability and adequacy of the US bulk electric system; a successor to an industry council formed in 1968 after a major Northeast US blackout (oversees 8 regional reliability organizations).
NGA	Natural Gas Act (1938), providing federal FPA/FERC with regulatory authority over interstate natural gas matters.

NRC	Nuclear Regulatory Commission, a federal agency that licenses and regulates nuclear power generators.
Net Metering	An electric service concept in which a customer has its own generating unit and output from that unit exceeding the customer usage is delivered to the local utility. The service meter may run backward in this situation, netting the customer generation against that customer's use of power provided by the utility. Act 295 includes a net metering program for Michigan – but now called distributed generation.
Performance Based Ratemaking (PBR)	An alternative to cost of service ratemaking that incorporates projected productivity improvements in the pricing for utility service. There are various forms of PBR.
PJM	PJM Interconnection, the RTO covering the central Atlantic states extending West to Chicago, including a part of SW lower Michigan.
Planning Reserve Margin (PRM)	An amount of electric generating capacity in a region, above the maximum customer demand, to ensure reliability of the system. MISO PRM was 14.8% in 2014-15.
PSCR	Power Supply Cost Recovery, referring to the annual rate adjustment mechanism for Michigan electric rates authorized by Act 304.
PUC, PSC etc.	State utility regulatory agencies are called public utility or public service commissions; also railroad commission (TX) or commerce commission (IL).
PURPA	Public Utility Regulatory Policies Act of 1978, promoting greater use of renewable generation and small power/cogeneration facilities.
PV	Photovoltaic, a type of solar energy with direct conversion of sunlight to electricity.
REA	Rural Electrification Administration created by the Rural Electrification Act of 1936 to support cooperatives extending electric power to rural areas.

Renewable Energy Credit (REC)	As used in Act 295, a unit of renewable energy representing 1 MWh of electricity generated; RECs can be traded separately from the associated electricity.
RPS, RES	Renewable energy (or portfolio) standard requiring specified amount of energy production from designated renewable sources (wind, solar, hydro, biomass); subject of state and possible future federal law. Michigan's RES under Act 295 was increased to 15% in 2021.
RTO	Regional transmission (system) organizations; operate the bulk electric system in specified geographic areas (also known as independent system operators or "ISOs"); there are 7 major RTOs.
Retail Choice (or Retail Open Access)	A program sometimes required by law (e.g. Act 141) that allows a non-utility supplier of electricity to sell electricity to an end user customer of the utility, with delivery occurring through the existing utility distribution facilities. Also exists for some natural gas utilities (DTE Gas, Consumers, MGU and SEMCO in Michigan).
Retail Wheeling	Using the grid to move customer-owned electricity from one location to a separate location.
Securitization	As used in electric restructuring, creation of a new security out of utility regulatory assets with repayment through non-bypassable charges in utility rates.
State Reliability Mechanism (SRM)	A plan adopted by the MPSC under MCL 460.6w to ensure grid reliability, possibly through establishment of a capacity or reliability charge to certain customers.
Stranded Costs	In electric restructuring, the unrecovered investment in utility assets that may not be recoverable due to regulatory and market changes, such as retail choice.
Transco	Company that owns the electric high voltage lines in an area, such as ITC Transmission (lower Michigan) or ATC (Wisconsin and upper Michigan) subject to operational control by RTOs.

Texas Interconnection	Texas has its own electric region covering most of the state, with the council Electric Reliability Council of Texas (ERCOT).
Unbundling	A requirement that utility service be separated into components of generation, transmission and distribution, with prices identified for each segment. Part of the retail choice programs.
Value Added Products and Services (VAPs)	A new term in Act 3 referring to unregulated services offered by a regulated public utility, such as appliance service plans, warranties or energy management.
Volt	A measure of the force that causes electricity to move in a wire. Compare to Ampere, a measure of the amount of electricity moving (number of electrons), or the Watt (power or ability to do work). Power (watts) = Voltage (volts) x Current (amperes).
Voluntary Green Energy Program	A new section of Act 295 requires utilities to offer voluntary green energy pricing programs (called customer-requested renewable energy).
Watt	A measure of electric power, or the ability to do work (1 horsepower = 745.6 watts).
Western Interconnection	A region including the Western US, with a single reliability council for the entire region.